NHDOT SPR2 PROGRAM
RESEARCH PROGRESS REPORT

Project # *Statewide-SPR 26962Q*		**Report Period** Year *2018* ☐ Q1 (Jan-Mar) X Q2 (Apr-Jun) ☐ Q3 (Jul-Sep) ☐ Q4 (Oct-Dec)
Project Title: *Iron Oxide Deposits on Highway Construction Projects*		
Project Investigator: *Joe Ayotte supervisor* **Phone:** *603 226 7810* **E-mail:** *jayotte@usgs.gov*		
Project Start Date: *September 21, 2016*	**Project End Date:** *March 31, 2019*	**Project schedule status:** X On schedule ☐ Ahead of schedule ☐ Behind schedule

Brief Project Description:

Rock fill material placed in contact with wet areas adjacent to roadways has been associated with the mobilization of high concentrations of iron and iron fouling in surface water. Collection of new data to characterize iron fouling, as well as statistical and geochemical modeling can improve our understanding of iron fouling potential.

Progress this Quarter (include meetings, installations, equipment purchases, significant progress, etc.):

USGS internal staff meeting to bring new staff Pam Lombard on board. (4/4/2018). Pam will be managing the project and writing the report in collaboration with existing staff. Joe will remain the primary DOT contact.
NHDOT Technical Advisory Group (TAG) presentation and update (6/21/18)
Draft Boosted Regression Model and iron fouling probability map created (6/30/18)
Exploratory physiochemical data graphs created (6/30/18)
Geochemical modeling 75 % complete. (6/30/18)

Items needed from NHDOT (i.e., Concurrence, Sub-contract, Assignments, Samples, Testing, etc…):

As discussed during the 6/21/18 TAG meeting we have proposed omitting additional chemistry sampling at 3 sites in lieu of analyzing relations to specific conductance and Cl through geochemical modeling.

Anticipated research next three (3) months:

We plan to wrap up the regression and geochemical analyses, write a draft report, and complete a draft data release and model archive.

Circumstances affecting project:
None

Tasks (from Work Plan) *work plan element from proposal*	**Planned % Complete**	**Actual % Complete**
Project planning	*100*	*100*
Data collection	*100*	*100*
Database construction	*100*	*100*
Modeling	*100*	*90*
Data analysis	*100*	*85*
Internal reviews	*66*	*66*
Data and model archive	*30*	*15*
Report	*30*	*15*